

(ii) Changes in the types of PPE to be used render previous training obsolete; or

(iii) Inadequacies in an affected employee's knowledge or use of assigned PPE indicate that the employee has not retained the requisite understanding or skill.

(f) Payment for protective equipment. (1) Except as provided by paragraphs (f)(2) through (f)(6) of this section, the protective equipment, including personal protective equipment (PPE), used to comply with this part, shall be provided by the employer at no cost to employees.

(2) The employer is not required to pay for non-specialty safety-toe protective footwear (including steel-toe shoes or steel-toe boots) and non-specialty prescription safety eyewear, provided that the employer permits such items to be worn off the job-site.

(3) When the employer provides metatarsal guards and allows the employee, at his or her request, to use shoes or boots with built-in metatarsal protection, the employer is not required to reimburse the employee for the shoes or boots.

(4) The employer is not required to pay for:

(i) Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots; or

(ii) Ordinary clothing, skin creams, or other items, used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen.

(5) The employer must pay for replacement PPE, except when the employee has lost or intentionally damaged the PPE.

(6) Where an employee provides appropriate protective equipment he or she owns, the employer may allow the employee to use it and is not required to reimburse the employee for that equipment. The employer shall not require an employee to provide or pay for his or her own PPE, unless the PPE is excepted by paragraphs (f)(2) through (f)(5) of this section.

(7) This paragraph (f) shall become effective on February 13, 2008. Employ-

ers must implement the PPE payment requirements no later than May 15, 2008.

NOTE TO §1915.152(f): When the provisions of another OSHA standard specify whether or not the employer must pay for specific equipment, the payment provisions of that standard shall prevail.

[61 FR 26352, May 24, 1996; 61 FR 29957, June 13, 1996, as amended at 67 FR 44543, July 3, 2002; 72 FR 64428, Nov. 15, 2007; 76 FR 33610, June 8, 2011]

#### § 1915.153 Eye and face protection.

(a) *General requirements.* (1) The employer shall ensure that each affected employee uses appropriate eye or face protection where there are exposures to eye or face hazards caused by flying particles, molten metal, liquid chemicals, acid or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

(2) The employer shall ensure that each affected employee uses eye or face protection that provides side protection when there is a hazard from flying objects. Detachable side protectors (e.g., a clip-on or slide-on side shield) meeting the pertinent requirements of this section are acceptable.

(3) The employer shall ensure that each affected employee who wears prescription lenses while engaged in operations that involve eye hazards wears eye protection that incorporates the prescription in its design, unless the employee is protected by eye protection that can be worn over prescription lenses without disturbing the proper position of either the PPE or the prescription lenses.

(4) The employer shall ensure that each affected employee uses equipment with filter lenses that have a shade number that provides appropriate protection from injurious light radiation. Table I-1 is a listing of appropriate shade numbers for various operations. If filter lenses are used in goggles worn under a helmet which has a lens, the shade number of the lens in the helmet may be reduced so that the shade numbers of the two lenses will equal the value as shown in Table I-1, §1915.153.

TABLE I–1—FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operations	Electrode size 1/32 in.	Arc current	Minimum protective shade
Shielded metal arc welding .....	Less than 3 .....	Less than .....	7
	3–5 .....	60 .....	8
	5–8 .....	60–160 .....	10
	More than 8 .....	160–250 .....	11
Gas metal arc welding and flux cored arc welding .....	.....	250–550 .....	.....
	.....	Less than .....	7
	.....	60 .....	10
	.....	60–160 .....	10
Gas Tungsten arc welding .....	.....	160–250 .....	10
	.....	250–500 .....	.....
	.....	Less than .....	8
	.....	50 .....	8
Air carbon .....	.....	50–150 .....	10
	(Light)** .....	150–500 .....	.....
	(Heavy)** .....	Less than .....	10
	.....	500 .....	11
Arc cutting .....	.....	500–1000 .....	.....
	.....	Less than .....	6
	.....	20 .....	8
	.....	20 – .....	10
Plasma arc welding .....	.....	100 .....	11
	.....	100 – .....	.....
	.....	400 .....	.....
	.....	400 – .....	.....
Plasma arc cutting .....	.....	800 .....	.....
	(light)** .....	Less than 300 .....	8
	(medium)** .....	300–400 .....	9
	(heavy)** .....	400–800 .....	10
Torch brazing .....	.....	.....	3
Torch soldering .....	.....	.....	2
Carbon Arc welding .....	.....	.....	14

\*\* These values apply where the actual arc is clearly seen. Lighter filters may be used when the arc is hidden by the workpiece.

FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operations	Plate thickness—inches	Plate thickness—mm	Minimum* protective shade
Gas welding:			
Light .....	Under 1/8 .....	Under 3.2 .....	4
Medium .....	1/8 to 1/2 .....	3.2 to 12.7 .....	5
Heavy .....	Over 1/2 .....	Over 12.7 .....	6
Oxygen cutting			
Light .....	Under 1 .....	Under 25 .....	3
Medium .....	1 to 6 .....	25 to 150 .....	4
Heavy .....	Over 6 .....	Over 150 .....	5

\* As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go to a lighter shade which gives sufficient view of the weld zone without going below the minimum. In oxyfuel gas welding or cutting where the torch produces a high yellow light, it is desirable to use a filter lens that absorbs the yellow or sodium line in the visible light of the (spectrum) operation.

(b) *Criteria for protective eye and face devices.* (1) Protective eye and face protection devices must comply with any of the following consensus standards:

(i) ANSI Z87.1–2003, “American National Standard Practice for Occupational and Educational Eye and Face Protection,” which is incorporated by reference in §1915.5;

(ii) ANSI Z87.1–1989 (R–1998), “American National Standard Practice for

Occupational and Educational Eye and Face Protection,” which is incorporated by reference in §1915.5; or

(iii) ANSI Z87.1–1989, “American National Standard Practice for Occupational and Educational Eye and Face Protection,” which is incorporated by reference in §1915.5.

(2) Eye and face protection devices that the employer demonstrates are at least as effective as protective as eye

and face protection devices that are constructed in accordance with one of the above consensus standards will be deemed to be in compliance with the requirements of this section.

[61 FR 26352, May 24, 1996,, as amended at 74 FR 46358, Sept. 9, 2009]

#### § 1915.154 Respiratory protection.

Respiratory protection for shipyard employment is covered by 29 CFR 1910.134.

#### § 1915.155 Head protection.

(a) *Use.* (1) The employer shall ensure that each affected employee wears a protective helmet when working in areas where there is a potential for injury to the head from falling objects.

(2) The employer shall ensure that each affected employee wears a protective helmet designed to reduce electrical shock hazards where there is potential for electric shock or burns due to contact with exposed electrical conductors which could contact the head.

(b) *Criteria for protective helmets.* (1) Head protection must comply with any of the following consensus standards:

(i) American National Standards Institute (ANSI) Z89.1-2009, "American National Standard for Industrial Head Protection," incorporated by reference in § 1915.5;

(ii) American National Standards Institute (ANSI) Z89.1-2003, "American National Standard for Industrial Head Protection," incorporated by reference in § 1915.5; or

(iii) American National Standards Institute (ANSI) Z89.1-1997, "American National Standard for Personnel Protection—Protective Headwear for Industrial Workers—Requirements," incorporated by reference in § 1915.5.

(2) Head protection devices that the employer demonstrates are at least as effective as head protection devices that are constructed in accordance with one of the above consensus standards will be deemed to be in compliance with the requirements of this section.

[61 FR 26352, May 24, 1996,, as amended at 74 FR 46358, Sept. 9, 2009; 77 FR 37599, June 22, 2012]

#### § 1915.156 Foot protection.

(a) *Use.* The employer shall ensure that each affected employee wears protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects or objects piercing the sole.

(b) *Criteria for protective footwear.* (1) Protective footwear must comply with any of the following consensus standards:

(i) ASTM F-2412-2005, "Standard Test Methods for Foot Protection," and ASTM F-2413-2005, "Standard Specification for Performance Requirements for Protective Footwear," which are incorporated by reference in § 1915.5;

(ii) ANSI Z41-1999, "American National Standard for Personal Protection—Protective Footwear," which is incorporated by reference in § 1915.5; or

(iii) ANSI Z41-1991, "American National Standard for Personal Protection—Protective Footwear," which is incorporated by reference in § 1915.5.

(2) Protective footwear that the employer demonstrates is at least as effective as protective footwear that is constructed in accordance with one of the above consensus standards will be deemed to be in compliance with the requirements of this section.

[61 FR 26352, May 24, 1996,, as amended at 74 FR 46358, Sept. 9, 2009]

#### § 1915.157 Hand and body protection.

(a) *Use.* The employer shall ensure that each affected employee uses appropriate hand protection and other protective clothing where there is exposure to hazards such as skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, harmful temperature extremes, and sharp objects.

(b) *Hot work operations.* The employer shall ensure that no employee wears clothing impregnated or covered in full or in part with flammable or combustible materials (such as grease or oil) while engaged in hot work operations or working near an ignition source.

(c) *Electrical protective devices.* The employer shall ensure that each affected employee wears protective electrical insulating gloves and sleeves or other electrical protective equipment,